THE TENNESSEE FARMER.

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BY THOMAS EMMERSON, AT $1 PER ANNUM IN ADVANCE—OR $1 50 AT THE END OF THE YEAR.

The Prospect before us.

The very large exportations of wheat in proportion to the moderate crop of the last harvest, added to the great diminution of the corn crop, produced by the early frosts of the late autumn, leave no room to doubt, but that a scarcity of grain will be experienced in this part of the country during the ensuing spring and summer. This state of things loudly calls on all for the observance of a rigid economy in the use of grain during the present winter, and a prudent forecast will induce those who have to purchase, to lay in their supplies at as early a period as practical le.

Least the fly or some other of those numerous misfortunes to which the wheat crop is liable, should blast the fair prospects afforded by the present flourishing appearance of that grain before the ensuing harvest, we would earnestly recommend to our farmers, a course of conduct, which in any event cannot be otherwise than highly beneficial to them—it is the following:

Break up, during the winter, your land designed for corn, so as to be prepared for early planting in the spring.

Use the utmost economy in saving all the manure you can make during the present winter, especially your ashes, and apply it next spring to the corn.

Sow liberally oats and clover, and provide plaster this winter for the latter.

By pursuing this course, you may reasonably calculate on abundant crops of corn next season, fit for early use. You will be provided with oats to supply the want of corn after harvest, and should the season prove favorable, your clover fields will greatly diminish your demand for grain after harvest—even should the wheat and rye fail.

But above all, by such a course, your land will be rendered capable of rewarding your future labors far more bountifully than it could otherwise do—and besides, the result of your labors in manuring, would stimulate you to increased exertion in future, in this most profitable branch of Agricultural labor—the consequence of which would be, that by the time the great rail road, which we now have so fair a prospect of obtaining, shall be completed, your lands will have so far increased in fertility, as to enable you to avail yourself of it, for the cheap and speedy transportation to market of an abundant surplus.

Do you enquire how you shall make, save, and apply manure? We say, take and read the TENNESSEE FARMER, and you will receive abundant instructions on these important subjects. Use vigorous and energetic efforts to reduce them to practice, and your prosperity, as well as the improvement of your country, is certain. But remember, that industry and economy must be leading traits in the character of every prosperous Farmer.—Without them, poverty and wretchedness would be your lot in the most fertile spot on the Globe—so effectually has the Great and Allwise Creator provided for the execution of that sentence on man, that in the sweat of his face should he eat bread. But remember, too, that without intelligence, or a knowledge of his profession and of his rights, even industry and economy will prove insufficient to save the Farmer from slavery and poverty. Witness the inhabitants of Egypt, of Italy, and of many of the most fertile portions of the Globe. Improve your minds, therefore, by reading—give to your children the best education in your power, and use the rights you now enjoy, for the purpose of compelling your rulers to provide for them, far superior means for educating their children, than those which you now possess. Thus will you entitle yourselves to the noble appellation, of benefactors of your country, and your children and your children's children, to the latest generation, shall call you blessed.

Rearing of Stock.

In our last number, we promised to notice this subject at an early period. We now proceed, in part, to redeem that pledge, by replying to the Queries of our correspondent from Middle Tennessee.

The following Rules, we think, are applicable to the rearing every species of Stock:

First—Breed from the best stock you can procure.—There is little or no difference in the expense of raising a fine high blooded horse, worth from $150 to $3000, and an ill made, weak and worthless animal, which, perhaps, may be sold for from $30 to $60.

Secondly—Let your stock be well fed, well sheltered, and in every respect well attended to—No half starved animal, exposed to every inclemency of the weather, will attain to perfection, and many will die under such treatment—It is, besides, one of the thousand instances of false economy, but, in truth, of shameful waste, thus to treat any animal; because, it is not only attended with a diminution of its value, far exceeding the expense saved, but it is a wanton waste of food. The corn, for instance, required to sustain the life of a miserable, half starved hog, weighing, perhaps, at three years old, from 120 to 150 lbs., and of fattening him, if judiciously fed, would have caused him, at eighteen mon ths old, to have weighed from 200 to 300 lbs., and the result is similar in regard to other stock.

Thirdly—Let your animals be as regularly supplied with salt as with food.

Fourthly—Let your food be properly and economical-

ly prepared. One bushel of grain, ground or steamed, will be equal to one and an half, or two, fed whole and dry—and hay or straw, cut fine, is proportionably superior in value to the same quantity, fed without cutting.

Fifthly—Let the best practicable plan be adopted for saving the manure produced by the litter, dung and urine of the stock. This will, if judiciously applied, be worth half their feed, and sometimes more than all of it.

As to the kind of stock, whether horses, mules, hogs, cattle, or sheep, which it would be most profitable to raise—this will depend on the capital and the description of each man's farm. For instance, the farmer who is able to keep brood mares of the best blood, and can breed from first rate horses, should prefer raising fine horses to mules—while he who can only avail himself of coarse, ordinary mares, should breed mules. Where there is a sufficiency of open land, for grain, meadow and pasture, and several hands constantly employed, and also the necessary shelters, we have no hesitation in saying, that the farmer ought to raise at least horses or mules, cattle and hogs—Because, the horses and mules, if well supplied with good hay, will require but little grain—the cattle will consume the straw, shucks, and other provender, which could not be consumed by either horses or hogs, and, except for pasture in summer, they can be raised with very little expense, while the manure they will make will be of great value. The whole corn crop, allowing the oats and rye for horses, may be most profitably fed to hogs, and with the aid of clover pastures in summer, and roots, such as artichokes, Irish potatoes, mangle wurtzell, &c., these animals, if properly attended to, and always kept in good order, will be found to be amongst the most profitable kind of stock; whereas, if reared in the common old fashioned mode, they will not pay for the grain consumed by them, even at the most moderate price. In the rearing of stock, it should always be remembered, that care, punctuality in feeding, and a strict observance, not of parsimony or stinginess, but of true economy, which, to a great extent, consists in liberality, are indispensably necessary to a profitable result. By the aid of these, many animals will, by their manure alone, pay for their feed, and all will, by the same means, make full remuneration for a large portion of their sustenance.

We should think, that by the aid of clover, judiciously managed and used, the occupants of the fertile lands of Middle Tennessee could not fail to find the rearing of stock a most profitable employment.

OBSTACLES TO AGRICULTURAL IMPROVEMENT.

Strange as it may appear to a reflecting mind, it is nevertheless true, that the great cause of agricultural improvement, on which the happiness and prosperity of individuals, as well as the national wealth, strength and resources are so entirely dependent, is more effectually impeded by a belief in a large proportion of those engaged in agriculture, that it is not increased knowledge, but additional physical force, which they want. We often hear it said, "we already know more than we can practice, and wherefore should we disturb ourselves about acquiring additional knowledge."

To such an objection it should be sufficient to reply, that every degree of knowledge of one's trade or profession, must always be beneficial.—The mechanic who is a perfect master of his trade, although placed in circumstances which preclude the possibility of his reducing all his knowledge to practice, will still be found universally to succeed better than his neighbor whose ability perhaps exceeds his knowledge—So it is with the farmer or planter. Although he may be unable to reduce to practice all the knowledge of which he is now in possession, yet there is much, no less valuable, of which he is destitute, which if possessed he could reduce to practice. Increased knowledge would moreover enable him to do, what he can and does perform, in a manner much more profitable, and often much easier than the one he now pursues.

But generally speaking, the objection to endeavors for obtaining increased agricultural knowledge, which we are now combatting, will be found to proceed from those who are the devoted advocates of that wretched, laborious and unprofitable land killing system, which has so long and so generally prevailed, especially in the Southern States—one would think that if the voice of reason were disregarded, occular demonstration would long since have left this system without a single advocate. What has it accomplished in two hundred years past? It has been most diligently pursued ever since the first settlement of the United States and what has been the result? Why invariably, without a single exception, it has reduced the countries to which it has been applied from fertility to barrenness, and forced their inhabitants either to abandon it, to substitute in its stead a different and a better system, or to remove from their native homes, and the society of their friends and relatives, to some distant clime, whose soil had not yet been subjected

to its destructive operation. Look at Virginia, North and South Carolina, Georgia, and even the older settlements in the States of Tennessee and Kentucky, and what do we behold, with the exception of those spots in which a better system has been resorted to, we see large tracts of country, once fertile, either so impoverished as to be totally unfit for cultivation, or at least reduced to that state, which renders them now incapable of producing one half, often one third, and not unfrequently not one eighth of their original product! The truth manifestly is, and it has been most clearly & decisively demonstrated by actual experiment, that such are the inherent defects of the system, that even the highest degree of original fertility has been unable successfully to resist its deleterious influence. The once supposed inexhaustible fertility of the rich plains of Kentucky, of West Tennessee, and of the richest bottom lands in both States, has rapidly declined under its baneful operation. Pennsylvania, and the Eastern States, also, were once subjected to its operation, and experienced the same fate—under the pressure of necessity, they have resorted to an improved system of agriculture, and what has been the consequence? Why, that in about fifty years, under its operation, many sections of those States, after being reduced almost to perfect barrenness, have attained to a degree of fertility, far beyond that which they originally possessed, and which now enables them to confer wealth, comfort and prosperity on their diligent and economical cultivators. Is it not passing strange, that with such clear, unequivoca', and decisive evidence, daily before our eyes, any one should still be found, incredulous as to the utility, nay the absolute necessity, of AGRICULTURAL IMPROVEMENT.

☞For the following communication from a subscriber in Hawkins County, we tender to its highly respectable author our sincere thanks—and may we not hope that his laudable example in communicating to his brother farmers the results of his observations and experience will stimulate many others of our readers to do likewise? On this subject we feel great solicitude, knowing, as we do, that were the Farmer to do no more than disseminate throughout the community the knowledge already possessed in Tennessee alone, much of which, unfortunately, is confined to a few persons only, its effects would soon be found incalculably to exceed the most sanguine expectations. The expected communications on the culture of cotton, have not yet been received—some experienced and successful Planter in West Tennessee or Alabama, would confer on us and on the country, a great favour by furnishing us with a few short essays on this highly important subject.

To the Editor of the Tennessee Farmer:

In the 6th No. of the Farmer are several queries on the subject of saving and sowing clover seed, and the preparation of clover land for a wheat crop; to which, I have not observed full answers. I have not succeeded well in raising clover seed, but presume my want of success was principally owing to waste in gathering—as to sowing, I think clean seed is to be preferred—because, it can be distributed more evenly over the ground; but if enough chaff is sown in calm weather, it will come well. Wheat grows better after clover than any other preparation of the land, I have experienced. The most approved method here is to turn in the Clover in July or August, harrow in September, and sow, and plough in the wheat, early in October. It is, however, a great saving of labor, and perhaps no loss of crop, to break up some what later, and sow and harrow in the grain, without disturbing the sod. I see this plan recommended, as allowing time for the seed to ripen, when it is desired to renew the clover crop with the seed then turned in. I am rather of opinion, also that on the latter plan we might sow wheat earlier than usual, and thereby avoid the rust, which in some seasons is very destructive to the crops before ripening, and it may be worthy of enquiry, with us, whether Hessian flies, are less numerous in clover land than other—or whether the clover or its roots may not afford nourishment for them, by which they are earlier at maturity, and cease their depredations before the wheat gets up to admit a deposit for their eggs—or, may it not be, that the kind of nourishment supplied by clover to the young wheat is so favorable to its growth, that the wounds inflicted by insects are soon healed, and produce but little injury.

I have not been successful, except in one instance, in renewing my clover crop without a new sowing—that instance, I will detail to you, in the hope that it may lead to a discovery of some of the causes of my former failures.—Having a field of good clover, from which two or three crops of hay and some seed had been taken, I had determined to let it grow up last year, and, (what I

have never yet done) turn in a full crop for a wheat fallow, but in the winter I discovered a large proportion of the clover roots thrown out by the frost, and lying on the surface of the ground; I then concluded to break up for a corn crop, which was done in February, and before planting, the heavy harrow was passed over it—which was certainly better than one ploughing of the corn, of which I made a good crop with two ploughings and one harrowing with the small harrow—not satisfied to give up my clover, and having but little seed to sow, and suspecting that the seed turned in was covered too deep for vegetation, I got the ground broke up (with large ploughs) in January last, as deep as it was the preceding winter, and before the wet weather (which set in the last of January) ceased, so as to admit of sowing oats, being some time in March, my ground was green with young clover—a good deal of which, however, was killed by harrowing in the oats, and the dry frosty weather which succeeded, yet the most of the ground is now well set—the oat crop is good, but I have no doubt would have been better, had the oats been lightly ploughed in, and could the sowing have been performed in February, the clover would also have been much more regular.

Since writing the above, the 7th No. of the Farmer is at hand, and the principal object of my communication superseded—but, I will not, therefore, withhold from the exercise of your discretion, whether any part of it may be worth publishing.

December 9th.

I see in the 13th No. of the Farmer, descriptions and weight of large Beets—On digging a square for peas, I find some large radishes, one of which is 27 inches in circumference, 15 1-2 in length, and weighs 16 pounds; the top is double, and now, though considerably withered by the late severe frosts, weighs 4 1-2 pounds—total weight 20 1-2. From the top being double, and the shape of the root, a doubt may arise, whether it might not originally have been two plants, but on this supposition, would not the wounds occasioned by the contact before adhesion so retard the growth as to prevent it's attaining to such a size?

I have discovered a much easier and more speedy method of digging garden ground, than that performed with the spade, which is merely to substitute in its stead, the common manure-fork—one, however, made square at top for the foot to rest on, would be better. Mine is a coarse 3 prong'd fork, the tines 8 inches long, 3-4 inch wide, and 1-2 inch thick at the shoulder, and tapering to the point, and 7 inches in breadth, bent as much as a common spade—the handle straight or nearly so, and 4 1-2 feet long. The advantage in working is, that it is easier forced into the ground than a spade, and the upper end of the handle being thrown forward to nearly arm's length, the fork descends perpendicularly into the earth—then, instead of lifting and turning, the process is rather rolling the lump over by lever power, first breaking it loose, then as the handle, with one hand near the end, and the other about the middle descends, the arm rests on the knee, and the forward hand becomes the pivot of a second lever, of less power than the first, and sufficient, with a little forward-motion, if the ground is somewhat adhesive, to turn over almost a cubic foot at once. If it inclines to turn backwards, drawing the fork partly out will generally obviate that difficulty, but sometimes the old method of lifting and turning must be resorted to.

Ground dug in the fall or winter, I conclude should be left rough, as presenting more surface to the action of the frost and air, it is in better condition in the spring than if made smooth, though finely pulverized.

Very respectfully yours, G. H.

Dec. 12, 1835.

From the Intelligencer & Expositor.

Improvement of Soil.

A distinguished foreign agriculturist, Archibald Gorrie, on the subject of green vegetable matter states that "Vetches, &c. ploughed in, are very effective manure," (under this article may be included all sorts of green manure,) & that amongst the most active plants employed as manure, I have found the Sinapisis, ploughed in fresh, &c.; and again—other weeds, such as *nettles, thistles, ragwort*, &c. produce crops superior to farm yard dung. *Potato stems*, ploughed in, on clover lea, for wheat, I have found to produce crops exceeding by two bolls per acre, in quantity, with more proportionate weight of straw, the other parts of the same field, manured with farm yard dung, but otherwise under the same circumstances. The stems from three acres of good potatoes, will manure an acre for wheat, to much better purpose, than fifteen tons of farm yard dung. I may mention an experiment I this year made with *pea straw*, converted into dung without the aid of cattle. Having something of that sort on hand about the middle of last May, and being in want of some loads of manure to finish a potato field, I had the peas threshed at the mill, and the *straws* and chaff carried to the side of the potato field, and made up like a large hot bed, giving each layer of straw an ample watering. Fermentation soon commenced and by the fifth day, the mass was so far decomposed, as to be easily filled into the carts. The effluvium, in filling was almost intolerable. It was in this state, and in the bottom of the drills, the setts of potatoes planted above, and the earth ploughed over the whole.—

Notwithstanding the dry nature of the ground, &c. that part manured with decomposed *pea straw* yielded a better return than where the farm yard dung was applied.

Here I will remind the reader, that every result produced on the *potato*, would be the same on our *corn* crops. The idea will naturally present itself, that recollecting the experiment of Mr. Young. (detailed in a former paper) if the *pea straw* had been *saturated* with the liquid part of the manure, or dung, the result would have been prodigiously increased. It goes to place in a most *striking light*, the value of even *dried vegetable matter*, when applied to promote the growth of plants, after being even partially decomposed.

It also ought to occur to the reflecting reader, that if this effect can be produced by *dried pea straw*, simply fermented with the aid of water, that our singularly large masses of *sweet potato vines*, is an invaluable article in the dungstead, as an aid to produce a superior compost manure. It cannot be doubted but if *three acres of Irish potato vines*, will sufficiently manure *one acre*, two acres of our sweet potatoe vines, would certainly produce the same result. I am led to doubt, from actual trial, whether there is any other vegetable matter, capable of giving so much aid to vegetation when properly applied, as the vine of the *sweet potato*. Thousands of the rank weeds that cover our fields, fill the lanes, and abound in our forests annually, are superior in their effect on vegetation, when properly managed to the plants spoken of so highly by Mr. Gorrie, as producing such valuable effects when applied as a manure; yet our stupidity permits them to rise and progress to maturity, die and become dissipated by the winds of heaven, while we go whining about the unproductiveness of our "uplands," or perchance go rolling about on the surface of the earth, in pursuit of that which Heaven would be justified in denying, to our profligate use of its best earthly blessings.

An additional experiment by a gentleman who now stands high as an agriculturist, exhibits the effect of green vegetable matter when accessible to the roots of plants, and in a decomposing state in aiding vegetation. On such subjects, his name is high authority. J. D. Parkes states: "I had a trench opened of sufficient length to receive six setts of potatoes; under 3 of these setts, I placed *green cabbage leaves*, but the other three had nothing but the soil. When the crop was dug, the plants over the cabbage leaves yielded about DOUBLE the produce of the others."

Rapacious must be that disposition that will not be fully satisfied with a profit of one hundred per cent. on any labor and capital bestowed, and equally senseless that, that would not try to secure it.

PLANTER.

Inoculating or Budding.—"In the multitude of councellors," saith the wise man, "there is safety."

Several valuable articles have lately been written on the subject of budding or inoculating fruit trees. A very elaborate one appeared some time since in Hovey's "American Gardener's Magazine"—an excellent one was contained in the Cultivator, which was transferred to the columns of the Genesee Farmer, in the same number which gave some very perspicuous directions for performing the operation. The mode recommended and generally practised, is to make two incisions in the stock in the form of a T. and insert the bud immediately under the longitudinal incision. Some years ago I was shown a somewhat different method by a skilful horticulturist, and a considerable experience in both ways, justifies me in saying, that the variation I am about to describe is attended with more certain success.

The incisions are made transversely and longitudinally as above stated, but the bark is raised only on one side, and afterwards a slice of it is taken off with the knife so as to readily admit the insertion of the bud. The bud, which is of the usual length, is trimmed in a rounding manner, likewise on one side, so as to draw it to a point at the lower end on the opposite side, instead of in the middle. When properly fitted, it supplies the portion of bark that has been removed; enough of the latter however, having been left to cover the side of the bud. It is then fastened by a ligature in the usual manner.

According to this variation from the common mode, a considerable advantage is gained, namely, the *cambium* is not liable to be injured under the center of the bud, the safety of which is therefore not so much endangered. Whatever injury may be done elsewhere, affects only the stock, which will speedily recover from the wound. When inserted in this way, it is very seldom that a bud perishes.

Perhaps the best time for performing the operation, is during the autumnal growth, when the union is readily effected.

Every farmer should know how to graft and to inoculate—accomplishments which will enable him to propagate to any extent such superior kinds of fruit as he may possess, or happen to meet with. Those who depend *entirely* on buying from the nurseries, run a greater risk of introducing diseases into their orchards, by which the hopes of years are sometimes disappointed, almost at the moment of fruition. *The yellows* especially, is a fatal disease to peach trees, the seeds of which may be brought from a distance, and afterwards extensively disseminated.

Genesee Farmer.

From the Washington Republican.

Internal Improvement and Universal Education.

No. 3.

TO THE PEOPLE OF TENNESSEE.

Fellow Citizens:

I am now to furnish an answer to the question, How is the Government to perform the herculean task of creating and supporting a good system of education, one adequate to the instruction of the whole people?

And at the outset I readily admit, that the task is one of difficulty, that it demands high intellectual attainments, a lofty patriotism, and large pecuniary expenditures. I admit this, because I do not wish to conceal, that the system of Education for which I contend, and which I believe to be alone competent to the preservation of our liberties, and the elevation of the character of our countrymen—is of a far more elevated character, than the miserable one which has heretofore too generally prevailed, and a reliance on which, for results of which it was utterly incapable, has done more, than any other cause, to discredit the inestimable value of education. The system of education for which I contend, is one which shall have a tendency to improve, and which shall actually improve to the highest practicable extent, the physical, the intellectual, and the moral characters of all those who are subjected to its influence. Not that miserable carricature of education, which is found by experience, to have little other effect, than to cultivate to a certain extent, the single faculty of memory, at the expense of debilitating the physical constitution, all the other intellectual faculties, and too often, the still more to be deprecated evil, the corruption and debasement of the moral facultues. The first therefore, requires teachers of a very different grade, both of intellectual and moral character, from the mass of those heretofore, most absurdly relied on, to confer on children a character, of which they were themselves totally destitute. It would require too, land, shops, books, maps, tools, and apparatus considerably exceeding in cost, the apparatus of our common English schools, consisting of a spelling book, a Bible, a slate, and a copy book. All these difficulties in putting into successful operation a good system of Universal Education, are readily admitted. But I contend, that their existence ought to have, and with rational men, will have, no other effect, than to stimulate to more vigorous and active exertions to overcome them, they are far, very far, from being insurmountable. The energies and resources of the country, if rightly directed, are amply competent to overcome them, and that too, without any serious oppression to the people. But, were they even tenfold greater than they are, we should always bear in mind, that the real alternative presented to us, is simply this, will we by surmounting these difficulties, with the patriotic ardor of freemen, preserve the liberty of our country, elevate the character of our children, and secure the lasting happiness and prosperity of our country for ages to come; or will we indulge in an inglorious apathy and indolence, and in a mean, contracted selfishness, at the certain and inevitable expense of substituting Despotism for Free Government, the degradation for the elevation of the moral and intellectual character of our posterity, and the poverty and wretchedness, the universal and necessary concomitants of despotism, for the prosperity, happiness, and glory, which high intellectual, moral, and physical improvement, must necessarily confer on every people, who shall have the wisdom, the virtue, and the energy to pursue their attainment, with a zeal and ardor in any degree proportioned to their intrinsic value? These are the alternatives presented to us, we may indeed choose the one or the other, but let it not be for a moment forgotten, that between them, and them alone, we must choose, and let us weigh well the consequences, before we decide a question, on the decision of which, results so awfully and inconceivably momentous are suspended.

The first enquiry to be made is, How are the funds to be raised, which are necessary for putting into operation such a system as I have described? I am not in possession of the data necessary to enable me, to enter into minute details on this point, and shall not therefore attempt to do so.—It will be sufficient for me to show, that the resources of the State are amply adequate to the object, and that too, even without sensibly burthening the people with taxation. A burthen to which however, if governed by reason, by patriotism, or by an enlightened regard to their own and their children's highest and best interests, they would, if necessary, most cheerfully submit from a full, clear, and deep conviction, that it would be productive to them, and to their posterity through all succeeding ages, of benefits incomparably superior in value to any, which they ever have derived, or ever can derive, from their contributions to the public Treasury.

First then the fund already appropriated to the purpose of education, is very considerable. To this may be added, the proceeds of all the public Land and other property belonging to the State, and all which may be hereafter acquired. These two items would soon amount to a large sum. But to these should be added, the annual surplus of the Revenue above the necessary expenditures of the government. If as should unquestionably be done, the taxes imposed shall be as high as the people can bear without oppression, and if by a rigid system of econmy, the public expenditures are reduced to the lowest amount which an enlightened regard to the public good will

permit; this surplus will at present be considerable, and will every succeeding year increase.—Special taxes too for the exclusive purpose of education might be imposed on professional men, lawyers, physicians, or merchants, on pleasure carriages and other articles of luxury, which would operate only on the rich, or the vain and ostentatious, who might choose to ape the customs and manners of the wealthy—all these items would amount to a large sum, which should annually be invested in such Rail Roads, Canals, or other works of Internal Improvement, as might be ascertained to be capable of yielding a profit, after deducting current expenses and those for repairs, exceeding six per cent. on the cost of their construction, and at the same time, by promoting the prosperity of the People by furnishing to them the means of cheap and expeditious communication with the various markets to which the products of their labor could be advantageously exported, or their supplies of foreign articles most advantageously and cheaply imported. Let the whole fund appropriated to education be invested in stock in such improvements, and let the State become the proprietor of stock in every such improvement, at least to an equal amount with the Literary Fund, and if necessary, to a much larger amount, by borrowing the funds necessary to defray the amount of their investment. As this money could be borrowed at all times at from four to five per cent., it is demonstrably evident that if the profits derived from the stock exceeded six per cent., the whole amount of the loans made, would be reimbursed out of those profits, in a period of time longer or shorter in proportion to the amount of the excess of the profits of the improvements over and beyond the interest stipulated to be paid on the loans contracted. So soon as these loans shall have been repaid, let the profits arising on the stock of the State in such improvements, be forever after vested in the fund for the support of education. By these means if it be true, as I have no doubt is the fact, that Internal Improvements can be constructed, the nett annual profits of which would exceed six or even five per cent. on the cost of construction, it is demonstrably certain, that in a few years the funds for creating and supporting an universal system of education, which would ensure to every child in the State, the benefit of a good education, throughout all future time, and this too, not only without any burthensome taxation on the people, but by means which would actually increase their individual wealth and pecuniary prosperity, as well as the population strength and resources of the State. If the foregoing views be correct, and of their correctness I think no man who will give himself the trouble to investigate the subject thoroughly, with an honest desire to attain truth, can bring himself for a moment to doubt—it would seem that nothing short of madness could prevent a people situated as we are, from requiring of their government in a tone which could not be resisted, the immediate adoption, and the vigorous and unremitted prosecution of a system replete with such unmixed good, and with consequences so inconceivably beneficial, not to one generation only, but to innumerable unborn millions throughout all future time. People of Tennessee, awake I beseech I implore you, to a sense of your best and highest interests—you already enjoy an enviable reputation in the estimation of your countrymen, and of the world—add to your existing claims to their respect, this proof of your intelligence, your virtue and your patriotism, and your memory will be transmitted to the last generation of men who shall inhabit our globe, covered with a blaze of glory, to which no other nation, ancient or modern, has ever heretofore attained. All that you have to do, to secure the happiness, prosperity, and glory of your country is, to confide the administration of your government for a few succeeding years, to men of intelligence, integrity, and patriotism, men who would feel themselves debased and degraded, and most worthy of the scorn and contempt both of the present and of all future generations, were they for the pitiful and contemptible object of attaining a momentary personal aggrandizement, to throw away the opportunity of becoming the noblest benefactors of their country and of their race, and of securing to themselves the eternal gratitude of unborn millions—select as your legislators such men, and assure them that so long as they shall manifest talent, integrity, and patriotism, in the prosecution of this great and glorious object, they may rely with assured confidence on your support and co-operation. Do this, and the great and glorious work, in which I invite you to engage, will have been accomplished to the inconceivable benefit of yourselves and of your children, and to the immortal honor of your country—adieu for the present.

ONE OF THE PEOPLE.

From the Farmers' Register.

On the Advantages to be derived from the establishment of an Agricultural Professorship.

To the Editor of the Farmers' Register.

BARBOURSVILLE, July 23, 1835.

SIR: It has been a settled conviction on my mind for years, that a professorship of agriculture—a pattern farm, and such a paper as yours, united therewith, would be productive of incalculable benefit to the commonwealth. The space of a letter is too confined to admit of one-half being stated. Suffice it to say, it would elevate the science—add dignity to the pursuit—call off

from encumbered vocations, a portion of the mind of our citizens now lost to the community—present a rallying point for all the scattered information of the land—reduce to the test of experiment every theory, plausible enough to justify it—by the same standard to prove the value of every discovery or improvement—promote economy by causing one experiment for many—a certain and rapid communication through the State, of the results—furnish a sure means of ascertaining the nature of our climate—the quantity of rain falling in the year—the seasons when drought most generally prevails—and by consequence, furnish data to guide the husbandman in the cultivation of crops, both as to time and kind. But I must stop—for I find no end to the advantages that would result from such an establishment. Let me, however, add one more. All these things are to be done before the youth of Virginia—the future men of the commonwealth, destined eventually to influence her destiny. A portion of these, selected from every part of the State (say one to each congressional or senatorial district,) of promise, but unable, from poverty, to educate themselves, to become the adopted children of the State, would be able by alternate labor and study, alike to keep up the farm, and to improve themselves. Indeed, it is worthy the profoundest consideration, whether every student of the University would not profit by a few hours' work daily, in the proper season. These being my views, I submit to you whether it does not behoove the tillers of the earth to make an effort to induce the legislature to attend to their neglected interests. How is this to be done? I answer as every other sect effects every thing by conventions—to that alternative we must also resort. What say you to such a convention, to meet in Richmond the first Monday in January? Let any one who feels an interest in the object attend. Let each agricultural society in the State be represented there. If it be asked what good can come of it, the answer is, let us try it. A free communion of the intelligence of the land cannot be altogether unproductive of good fruit. Apart from what can be done by such a convention on its own means, an appeal may be made to the legislature under the weighty sanctions of their united wishes, to do something for us. If the view which I suggest is esteemed impracticable, they may incorporate an agricultural society in each congressional district, and award a small sum to each, to be distributed in premiums, after the manner of New York and other States.

But it is objected that it will cost something.—Have we not as a class offered our fleece annually, without a murmur, to be appropriated to other improvements? Is it unreasonable that in turn we should require a small portion of our own to be applied to our peculiar benefit? A small portion of the interest paid annually by the University, would in a few years put our scheme completely in operation, and I verily believe after that, it would be able to support itself. However, all these things might be discussed in convention, and digested in a form that would be most acceptable. And I may be permitted to add, that for once we should have a convention, whose sole object would be the good of the country—a spectacle so singular in these times, that it could not fail to be as consolatory as the oasis to the weary traveller of the desert.

If you agree with me on this point, you can greatly promote the object by inviting the meeting in your journal. If I thought my name would be of any service, you would be at liberty to use it with my remarks. But I fear not. However do as you please. I have it much at heart to do something. Better heads than mine may suggest better plans, to which I will most cordially submit.

Accept assurances of my high consideration,
JAMES BARBOUR.

On Agriculture.

Agriculture, whether considered in reference to health, pleasure, moral influence, security, independence or respectability, will not suffer in comparison with any other employment in which mankind are engaged; and indeed, in most of these respects, it claims a decided pre-eminence over every other pursuit. Nothing is so well fitted to strengthen and invigorate the frame and constitution as exercise in the open air, or better calculated to avoid the inception or prevent and restrain the ravages of disease, than the hardiness induced by agricultural labors. The farmer is assailed by fewer temptations to vicious indulgence than the laborer in other occupations, and the nature and variety of his engagements, while they are productive of mental quietude and enjoyment, directly tend to teach him to "look through nature up to nature's God." Furnishing sustenance and the materials on which their industry is exerted to the manufacturing and commercial classes, he seems to originate every thing, and is in truth as independent of his fellows, as in civilized society it is possible for any individual composing the general aggregate to be.—*N. H. Patriot.*

A Farmer in Scotland, sowing a field of turnips, appropriated a ridge for the accommodation of the public, with this label; "You are requested to steal out of this spot."

Experiment of Ashes and Gypsum as a manure for Corn. Plan for managing Tobacco plant beds.

To the Editor of the Farmers' Register.

I promised (in due time) to send you the result of a small experiment on the application of plaster and spent ashes to corn, mixed in the proportion of one-third plaster, and applying a single handful to each hill of corn. I have now gathered and measured the corn on six acres—which was all I could manure in this way, in consequence of the want of ashes. The result is, forty-nine barrels and a half on the six acres. It is proper to state, that the land was very poor—a part of it had been cow-penned during the previous summer; another part was a complete gall, without soil upon it, and a small part, (less than an acre,) the margin of a branch. I do not believe the six acres, without the plaster and ashes would have made fifteen barrels, even in this favorable year—the corn adjoining this on similar land, being an indifferent crop, though it received precisely the same cultivation. Nor have I a doubt that I might have had nearly double the crop on the six acres, if I had doubled the quantity of hills, as the stalks are universally large and luxuriant—larger than I ever saw on high land. Although this result falls far short of the produce in Maryland, under similar treatment; yet I am well pleased with it—having trebled the crop I had hitherto expected to reap from such land; and I have now no doubt that where ashes are attainable in sufficient quantities, the crop of corn would be always doubled at least—perhaps in most cases on poor high land, quadrupled. It may be necessary to state, that my six acres were laid off in horizontal rows, five feet and a half apart, the corn being dropped in the row at intervals of about three—one stalk generally in a hill, occasionally two. It received but two ploughings and one hoeing—but would have been much benefitted by another ploughing, which I would have given it had my other farming operations permitted it.

I have thus, Mr. Editor, redeemed my promise to give you the result of this first experiment on the use of plaster and ashes combined. I am not chemist enough to know whether the combination of the two produces a stronger manure than either alone; of this, however, I am certain, that no use of plaster on my plantation has ever produced so great effect as this combined use of plaster and ashes.

Whilst I have the materials for writing before me, I will add a piece of information for the benefit of your readers who make tobacco (doubtless known already to many but which others may profit by—) on the rearing of early and good plants. I have tried the method I shall recommend, for three years with entire success; so have others of my neighborhood. The plan is exceedingly simple and easy of practice, viz: to underlay the plant bed previous to sowing it, with tobacco stalks, covering them about three inches deep with earth. This may be done by the plough, where the bed is clear of roots and stumps, or else with the hoe by digging trenches parallel to each other, nearly touching each other until the whole bed is gone over, filling up the last trench dug, (after pulling therein the stalks) with the dirt that comes out of the next. If a plant bed thus manured fails, every body else in that neighborhood will certainly fail too, to raise plants that season. Mr. Old of Powhatan, (whose reputation as a tobacco maker, stands so deservedly high,) tried this plan last spring with the most perfect success.

H. M.

November 13, 1835.

Extract from the New York Farmer.

Clean Wheat catching the disease of smut.

"A neighbor of mine, having purchased some very excellent seed wheat, the same was delivered in the farmer's bags of whom he had bought the wheat, with a promise that he, the purchaser, would return the bags immediately after the grain was sown or deposited in the drill. My neighbor complied with this request, and having drilled about half the quantity, from those bags in which he had received the wheat, he took opportunity on the following day, which day had been very wet and unfavorable for drilling the remainder, to empty those bags, in order that they might be returned. Thus was his excellent, clean, and till then unadulterated wheat, put into his (the purchaser's) own bags, which before had contained some foul and *diseased smutty wheat*, as he, together with his farm servants, acknowledge the fact. On the third day the remainder of the wheat was drilled on the same soil, and in the same field, but not from the *clean bags* of the seller of the seed wheat.

"Now, mark the result at harvest. The clean seed wheat, which had been emptied into the farmer's own filthy smutty bags, produced about *one twentieth part of smutty ears;* whereas, from the former day's drilling, not a *single ear* of smutty wheat could be found."

New species of Wheat.—A new species of wheat has been discovered in France, which promises to be an invaluable acquisition to the agricultural interest. It is said to ripen in 70 days from the sowing, and to give three crops in the year, as it grows equally well in all seasons. We hope some of our seedsmen will avail themselves of it by an early importation.

Silk Culturist.

From the Cultivator.

On Seeding.

Of all the practices constituting good husbandry, none are more replete with beneficial effects, and which better repay the outlay than that of seeding. It has become an established practice with good farmers to seed frequently with clover and timothy, a practice that should be adopted by all. It is high time that the practices and opinions of our ancestors—those which derogate from our best interests I mean—should give place to more modern and more rational views. That there has been great advancement in the science of agriculture will be conceded by all; then why do we cling so strenuously to ancient practices, when those of more modern date are infinitely superior.

I rejoice in the improvement that has been already made. Agriculture has become the theme of the day. The most enlightened of our citizens are embarking in its pursuits, which give assurances of its being ultimately established upon a basis concomitant with its merits. Then it behooves us to follow those practices most clearly demonstrated to be beneficial—and believing seeding to be one of these, I proceed briefly to detail its utility.

The practice of seeding is too much neglected by many of our farmers, a practice, which, could they be induced to adopt, I am confident in believing would not be relinquished. The natural grasses yield less of quantity and nutriment than either clover or timothy, and some others of more recent introduction. Double the quantity of pasture may be obtained from a given piece of ground well seeded, than it would otherwise afford: and for mowing there will be a still greater difference.

Independent of this, its fertilizing properties to the soil must be considered. A good sod preserves the soil from the too great influence of the sun, renders it porous, and consequently pervious to atmospheric nourishment; hence we observe that meadows newly laid down almost invariably bear the greatest burden.

Whereas grounds not seeded, by being too much exposed, soon become of so compact a nature as to render them in a degree impervious to either heat or moisture, without which they cannot be capable of the least productiveness.

Autumn we consider the most proper time for sowing timothy, and the spring for clover. We have generally made it a practice to sow our timothy immediately after the last harrowing in of the wheat, having a person to follow each harrow which leaves not a particle of ground without seed and never have perceived the wheat to have been injured in consequence.

The time for sowing clover must depend altogether on the season whether early or backward. We have oftener sown too early than too late and I am inclined to believe that others have fallen into the same error.

In my opinion, it should not be sown until the ground begins to dry and become settled, when it will be observed there are innumerable small crevices produced by the contraction of the earth, which will receive the seeds, and which the first rains will close, thereby producing immediate vegetation.

Respectfully submitted, by

GEO. WILLETS.

Skaneateles, Ond. co., 8th mo. 17th, 1835.

From the Farmers' Register.

Large products of small Farming.

While you are crowded with communications from *men*, upon the all important subject of agriculture, I hope you will pardon the intrusion I hereby make in detailing the following crop, made by a Chesterfield *plough boy*.

I was left, at the tender age of 15 years, by the death of my father, the sole care and support of my mother and six children, all younger than myself. At my father's sale all his servants were hired out, and I hired one—for keeping which, I was allowed by the estate $23. The only service he was able to render, was to keep us in fire wood and weed the garden. The sale took place at Cobb's on the 14th of April 1825, at which time I had about three days ploughing done. The reason of my lateness was, that I expected to move away, and only decided to stay about the 1st of April. My stock consisted of a colt, three years old, two young cows, one sow with six young pigs, a yoke of oxen, two carts; two ploughs, one wooden harrow, three hoes and one spade. My provender being scant, I resolved to help it out; by a grazing lot, and accordingly fenced in one of one acre of clover, and thus equipped, I commenced my crop. I listed up seventy-five to eighty thousand corn hills of land, crossed it with a trowel hoe, and my little brother, five years and six months old, and two sisters, older than myself, planted the corn while I ploughed. I had besides, a horse and plough one day, and two hands to plant after it, which was all the help I had during the crop.

I laid off one and a half acres and planted it in sweet potatoes, cotton, Irish potatoes, melons and other necessary vegetables. I broke up the balks between the corn while it came up.—My kind and friendly neighbors proved Job's comforters to me: for all predicted my failure.

My plan for working and feeding was formed by necessity. Knowing that if I did no more work than my neighbors I should be "run away with grass". I fed the horse on corn after, or at night, and as soon as it was eaten I put him in the clover lot. As soon as it was light enough

to see, I hitched up and drove briskly until breakfast time—took out and fed while I ate, and for which I only allowed forty-five minutes—worked till one o'clock—rested an hour and a half when cool, two hours when warm—when very warm, two hours and a half and sometimes three hours. I would then hitch up and drive as long as I could see to keep off the corn. I cultivated my crop entirely with the plough, rejecting the hoe, except to replant from necessity. I soon saw that my corn outstripped that of my neighbors. I looked on with astonishment. I laid by my crop with the dagon plough, and had finished to about eighteen thousand hills, when the weather grew dry, and at the earnest entreaty of my neighbors, who saw the corn twist up after every furrow, I stopped; and thus I found by listening to them, much against my own judgment, I only made about two-thirds as much on that part, as I did on the other, besides the loss of much fodder; as that fired, while the rest kept green even to the last furrow.

I began to use my new corn about the 10th of September. The hogs got into the field and destroyed about four barrels. After using from it all fall and winter plentifully, and fattening six shoats, it turned out as follows:

Sold at the door	20 barrels at	$3¼	$65 00
" "	20 " "	4	80 00
Petersburg	15 " "	4½	67 50
" "	13 " "	5	85 00
" "	5 " "	6	30 50
I raised 200 lbs. of cotton, for which I got 25 cents per lb.			50 00
Got for fodder, tops and shucks			53 00
150 bush. sweet potatoes at 40cts.			60 00
Six shoats were worth - -			21 00
Sold melons, turnips, &c., which brought me - - -			20 00
Bought 10 bushels wheat at 75 cts., and seeded it—and sold it at $1, and the same for seeding, and made by the job, net - -			12 50
			554 50
From which deduct hand hire for getting fodder, - - -			10 50
			$534 00

The time I was employed about it was about seven months, and my labor yielded me at the rate of, or about, seventy-six dollars per month. I do often fondly look back upon that year, and all looks like the work of magic. Truly the God of nature was with me, though I knew it not.

N. B. My Irish potatoes turned out less than the seed I planted, I thought that the more I ploughed and worked them the more I would make, and consequently, worked them about eight times, and found, to my astonishment, that I had the finest vines I ever saw, but no potatoes larger than a partridge egg, or thereabouts—and they few and far between.

J. L.

From the Farmers' Register.

Inquiry on swamp Mud. Twin Corn.

Cypress Spring, Essex County, Sept. 21st, 1835.

I am now about commencing an experiment with swamp mud as a manure, and should be glad to get information upon the subject from some one of your correspondents, as to its effects, and the best mode of applying it.

I was induced from reading the address of James M. Garnett, Esq. to the Agricultural Society of Fredericksburg, recorded in your paper (No. 8. Vol. II.) as well as from his personal recommendation, to make trial of the twin (or as he calls it extra-prolific) corn, and obtained from Maryland a barrel, about two bushels of which I planted, some on inferior high land, and some in low ground. It has succeeded beyond my expectation; every stalk has two, three, and frequently four and five ears, not large, but I think two are more than equal to one ear of the corn commonly planted with us.

PETER J. DERIEUX.

From the Farmers' Register.

THE NATIVE MULBERRY FOR SILK WORMS.

The foregoing article shows at a glance that the people of New England are about to make silk culture a large and important branch of their rural economy. It is there no new and untried speculation. The business has long been pursued in Connecticut, and with results so satisfactory as to induce these recent and far more expensive investments for the same object. If good profits can be there made in the cold and unfriendly climate of New England, (where it is yet a problem to be solved whether the best species of mulberry can stand the winter's cold,) how much more profitable would the business be in Virginia and the more southern states. Our *cheaper* slave labor would also afford advantages, and many aged or infirm hands could be profitably employed in this business, who are now a useless expense to their owners. Much land that yields no net profit under usual crops, would serve well for mulberry trees.

The opinion expressed above of the worthlessness of the native (black or red) mulberry tree, for yielding silk, is as general as it is erroneous—and the error (though of use to nursery-men), is very injurious to the community, in causing all efforts in silk making to be postponed until mul-

berry trees can be reared. Now, though professing to know very little of silk culture, we will venture to assert that those who can *succeed well* by using leaves of the white mulberry, will not *fail*, nor do a much worse business, with the black. The black is doubtless somewhat inferior to the white mulberry, as this is to the Chinese: but the difference of products from either two, would not be so great as would be made by the difference of care and management of almost any two new silk growers.

Dr. Wm. L. Cocke of Sussex, Va. some years ago fed some silk worms on the leaves of the common mulberry, and others on those of the white, and prepared sewing silk from each kind. It was either his first or second year's trial of the culture, and on a small scale, and of course attended with all the disadvantages of a new beginning, independent of any inferiority of the kind of food used. He sent specimens of the silk from the common black mulberry to Mr. Du Ponceau of Philadelphia, who, in conjunction with Mr. D'Homergue, was then writing to urge the undertaking of this business. The specimen was considered by the latter as so excellent, that he at once pronounced, in the presence of the gentleman who carried it, that it could not have been the product of the native mulberry. The bearer of the specimens, however, was enabled to declare the contrary, he having been during the time a member of Dr. Cocke's family, and acquainted with all the circumstances of the experiment. Still no subsequent allusion was made to this circumstance, though it was so well calculated to encourage early and general efforts—and probably, because of some lingering remains of doubt of the correctness of the experiment, or the statement, the results being so different from received opinions.

But while we advise those who wish to rear silk worms to use the native mulberry trees, if they are ready and convenient, we also recommend to them the immediate planting of a better kind, and especially of the new Chinese, (or Morus Multicaulis,) for future use. If there is doubt whether this valuable tree will thrive farther north, there can be none here—and as it furnishes undoubtedly the most abundant and nutritious food, and as the silk business *must* extend rapidly, every acre of land now, or soon, planted with cuttings of this tree, will be almost sure to yield a highly profitable crop, either for sale or for use.

From the Silk Culturist.

Culture of the Mulberry.

Eastwood, near Fredericksburg, Va.

Sir:—I feel deeply interrested in the success of the silk business, particularly as regards this State, and beg leave to suggest to you the propriety of making a statement of facts, which I think would arouse the most indifferent.

I believe no statement in your paper has placed the net profit of an acre of land, well set in grown mulberry trees, at less than $100 per annum, and some writer has put it at $300. Now, can this be shewn conclusively—or, in other words, are any of your various companies prepared to rent or purchase lands, well set in grown or five years old trees, at any thing like the above prices? If these queries can be answered in the affirmative, hundreds of our citizens who are now forcing their lands into market, to move west, at from $5 to $7 per acre, would be induced to remain and cultivate silk.

There is no agricultural staple in the world, as little liable to fluctuation in price as *silk*. It will be at least fifty years before we can supply the home demand; and England must ever be an importer to an immense amount.

Now, sir, let me state one more fact, in regard to the *net profit* per acre *per annum*, in this State, of cultivated land, It is less than $6, and I am fully prepared to prove it.

Very respectfully, J. B. GRAY.

P. S. I myself have gone largely in the business.

Skinless Oats.

Mr. James M. Garnett, of Virginia, in a late paper in the Farmers' Register, bears the following high praise, in favor of this newly introduced variety of the oats. It weighs 47 pounds to the bushel, which is 5 pounds more than the heaviest English oats weigh. He planted one pint in drills in his garden, nine inches apart one way and two the other. The pint sowed 247 square yards, and produced 116 pints. Its average height was four feet. He thinks from the appearance of the grain that it would make very good flour, but for horse feed that it is superior to any other yet discovered.—*Farmer & Gardener.*

Great Corn Crops.—R. P. Currin, Esq. informs us that he has this year planted in corn, about eighty acres, which will yield on an average fifteen barrels to the acre. One acre produced eighteen barrels, and another fourteen and a half. Mr. B. B. Fore superintended his crop. Who can beat it?

Mr. C. H. Hines of this vicinity, has this year realized from sixteen acres of land, about two hundred barrels of corn, every ear of which was remarkably large and heavy. Old Williamson forever.

W. W. Review.

On the Cotton and Pea Crop, Ploughing, &c.

Near McVintage Post Office, }
Edgefield District, S. C., July 13, 1835. }

To the Editor of the Southern Agriculturist.

Mr. Editor,—I am glad to find that efforts are making, through the medium of the *Southern Agriculturist*, to improve the mode of husbandry, that has been so long neglected in the middle and upper districts of this State. But I fear while the staple article keeps up at the late and present prices, it is almost a useless endeavour to convince our farming and planting brethren of their injudicious culture. The period, however, is not far distant, perhaps, when the accumulating growth of cotton, and every species of manufacture of which it is susceptible, will arrive at their full extent, and it will consequently decline in value. Until this time arrives, cotton will be the principal object of culture, regardless of comfort, interest being the main spring by which all human actions are governed; still we ought not to be discouraged from promulgating our practical agricultural knowledge, in the hope, that it may produce some benefit to other planters and farmers. If my experience can aid in so desirable an object, it will afford me the greatest pleasure, having myself derived much benefit from the practice of others, communicated through agricultural works, particularly that under your management. I perfectly agree with Mr. Pinckney, of Pendleton, in his plan for the restoration of worn out lands, with this exception, that in the section in which I am located, foreign grasses and clover will not succeed, the latter of the greatest importance. Rotation of crops is of the utmost consequence, and perhaps, there is no greater restorative to land than the common field-pea, but only the peas should be gathered when planted in corn, leaving the vines and leaves to restore to the land, in part, what has been taken from it, for corn leaves nothing; the blades being stripped, and corn stalks, if ploughed in, the spring following are of little value as a manure.

When peas are intended for fodder, they should be planted in a separate piece of land, as they are a great exhauster when vines and all are taken off, it will require a little manure for a succeeding crop. This is the most valuable article for fodder in the Southern States; they are easy of culture, not very difficult to cure and preserve, and, if properly understood, every thing thrives thereon.

With regard to manuring, in this section of country, it can be done but to a limited extent from leaves, in consequence of the lands being so much cleared, and the range for stock so much reduced, little benefit can be obtained, for without stock to tread, and something to receive their dung and absorb their urine, it would be fruitless to attempt any thing but on a small scale. In the upper districts, these difficulties are obviated. It is beyond all doubt, that the application of manure in broad-cast is the best mode; next to this is in the drill form. The practice of applying it on each side of the plant, is injudicious, not only from the principle of economy, but the effects produced by it. When the lateral roots branch off in search of nourishment for the support of the plant, and perfecting its fruit, get beyond the influence of this peated manure, and reach that part of the ground from which every thing is taken and drawn up to the bed, receive a check, the plant as well as its product, must feel the effect. This will not be so much the case in placing it in the drill; and what is termed forcing of corn is certain to be produced in dry weather, by applying the manure about the stalk of the plants, and the advantage is lost. In these remarks, I have reference more particularly to corn, but it will apply to every species of culture.

The implements of husbandry, and their application, is next to be taken into view, of no less importance. What our forefathers have done, appears to have been entailed upon many of our planting and farming friends, particularly the use of the Goffer or Shovel plough on all occasions. This plough is useful in its place, but to make what is termed a crop by it alone is out of the question. In breaking up old lands the Mould-board plough is the most efficient, throwing it up into beds early in the fall, at the distance intended to be planted, and previous to planting reversing the beds. Should it be tenacious sedge land, I would recommend running fire through it and then breaking up cross-wise with long and sharp Bulltongue ploughs and then treated as above. In preparing land that has been the year previously planted, the beds should always be reversed, unless manure was put in them; running a water-furrow plough (a broad and long pointed shovel) in the alleys, and followed by a mould-board plough, returning the earth into the furrow made by the water-furrow plough, and so on, until the bed is made, leaving the baulk to be broken up by the water-furrow plough, this will give level beds designated by the water-furrow. When the time arrives for planting cotton, run a bull-tongue plough in the middle of the bed, to sow the seed in, and cover it with a board attached to the plough stock to where the plough-hoe is fixed, or a furrow may be run, the seeds sown in it, and then covered with a furrow on each side, leaving it until germination begins, and then knock it off with the board, this will destroy the young grass that is coming up, but care must be taken to have this done in proper time, in case of a succession of rainy weather.

When the cotton is sufficiently up, it should be cut out with a hoe, the distance intended for a stand, and when it has progressed so as to make it necessary to be ploughed a small bull-tongue

plough should be run close to it, not only to cut out such plants as are not upon a line, but to cover the small grass among the cotton, which can be done, if any caution is used, without covering the young cotton. After which the half-shovel, or what we term the wing-shovel should be used to fill up the furrow previously made by the bull-tongue, and throwing up sufficient earth preparatory to the first hoeing, leaving the spaces between the beds to be broken up afterwards; this will give great facility in the early part of the crop.

Should the seasons be such as to endanger the crop from the accumulation of grass, I would recommend running the mould-board plough with the bar next to the cotton, one furrow on each side of the beds, throwing from it; this will take much grass from the cotton, and will cover much more in the alleys. A few days after, the grass so covered will be killed, or so much crippled, that a furrow may be returned to fill that which was previously made; as to the grass in the allies, that can do but little injury before it can be controlled. The indiscriminate application of the plough and hoe, particularly the former, is attended with the most injurious effects. Wet or dry, by many planters, they are in operation, when it must be obvious to every reflecting mind, that when the earth is highly saturated with moisture, and exposed to the influence of evaporation and the heat of the sun, is more destructive than years of proper culture. And when the earth is parched from drought, the same practice is pursued. Hence, from this cause do we frequently hear of bad crops, laying it altogether to the seasons, not bringing judgment into question. Another error which we commit, is the omission of task work, in which the lower country has a decided advantage. What stimulus is there to negroes to be put indiscriminately together to work row by row, from daylight to the going down of the sun? The most effective hands are put foremost, and those less so, to follow and keep pace with them, and when an exertion is made by the former, under the immediate eye of the overseer the weaker hands become exhausted, and soon as ever the back of the overseer is turned, the strong hands slacken their pace, and reduce it down to the standard of the others, and then work at their leisure. Every negro, according to his ability, should have task work allotted to him when it can be done, and it will be found that more work will be executed, and that with more cheerfulness, allowing a gain of a little time to the negro, which is great encouragement to him.

The land that I plant is not only rolling, but very much broken, and I have had, for years past, to exercise every ingenuity I possess to to retain the soil, adopting horizontal culture laid off by a level, leaving belts from eight to ten feet wide, at the distance of thirty yards and upwards apart, according to the land; and latterly have adopted horizontal ditches below these belts, in order that the belts should check the impetuosity of water in heavy rains and discharge it into the ditches, to preserve as much as possible the next cut, as it is termed, from washing. But notwithstanding all these precautions, where there is any defect in levelling, the water will concentrate and pass over, producing gullies. To obviate, in a great measure, these difficulties, I have partially adopted and recommended to others, not to pursue the horizontal plan exactly, but to give an inclination of the beds to the ditches, or even gullies, if they have been previously made so as merely to drain off the water from the alleys of each bed without making any thing like a gully.

In conclusion, I would remark, that deep ploughing, and the earth well pulverized, are the only secure ways of managing broken and rolling lands, so that the excess of rains should be absorbed as much as possible. Shallow ploughing only prepares the soil to be washed away by the first rain that succeeds it.

Respectfully, your obedient servant,

ROBERT WATTS.

Silk.—Timothy Smith, of Amherst in this State, raised the present year about ten pounds of reeled Silk, for which he obtained a prenium of ten dollars at the Brighton Fair, and five dollars at Northampton. The silk was sent last week to Mr. Barrett of this city, who sold it for *fifty-three* dollars. The owner has thus realized about seventy dollars for nine pounds and twelve ounces of silk. *Boston Courier.*

PORK.

The price of Pork will range this season in the State of Ohio generally, as far as we are able to learn, from $4,00, $4,50 to $5,00 per one hundred pounds.

Ohio Farmer.

TOBACCO.

The Agricultural Society of Moscow has awarded gold and silver medals, as premiums of encouragement for the culture of American Tobacco, which has perfectly succeeded in Russia.

PRODUCTS OF OUR COUNTRY.

The wool crop of the present year was probably worth twenty-five millions—and, as a general calculation, of its manufactures, about fifty millions. New York furnishes the largest supply of wool. There were 3,485,539 sheep in 1825—now probably, 7,000,000! as will be soon ascertained, this being the year of the State census. Vermont has, perhaps, 1,500,000—and they are

very numerous in many of the Eastern, Middle and Western States. The cash duty payable on woolens, and the more just valuation of the pound sterling with improvement in the collection of them—the rise of price on British goods, and the use of newly invented American machinery, &c., have caused the manufacture of wool to be a "fair business." The range of woolen goods as those of cotton, has been widely extended. For an instance, four fifths of the carpets used, are "homemade." —the duty of coarse wool being abolished. They are cheaper and better than the imported, and equally beautiful.

The manufactures of leather and iron, (not including the common smith work, as to the latter,) are worth not less than eighty millions a year. But we shall not go into details, or even notice other great and valuable manufactures—just now.

A new business is making rapid strides to importance —the manufacture of silk. This will be in five years or less, worth from ten to twenty millions a year, and give a profitable employment to vast numbers of women and children, at their own homes. Already one gentleman has made preparations for feeding 5,000,000 worms.— The reeling of silk, and the weaving of it have been much improved by Yankee ingenuity, and will be more simplified. The power loom has been successfully applied to it.—*Niles' Reg.*

Our Silk Manual.

We have compressed by the free use of double columns, a large page, and suitable type, into a pamphlet of 72 pages, as much matter as would make two large octavo volumes in the fashionable method of book making, our object being to get as much as possible into a small compass, in order that we might sell the work at a price so moderate as to place it at once within the reach of all. We have, therefore, fixed its price at 50 CENTS, a sum so inconsiderable, that every one, who so inclines, may obtain a copy. We feel certain that if the subject is properly estimated by agriculturists, that the Silk Culture is calculated to make a great moral and physical change over the whole face of the country, and to banish penury from the door of every farmer in this land, who has enterprise and industry enough to enter into it. Our great object in the compilation of our work has been the advancement of the comfort, and consequent happiness of poor females, destitute children, and the decrepit aged, of both sexes, and we do hope that from the affluent of the gentler sex, we shall receive such auxiliary aid, as shall ensure to the culture an onward course. Should they interest themselves with their fathers, husbands and other male relatives, it must succeed—for no one can resist an appeal addressed to the heart by a female advocate, whose eloquence and feeling may have been aroused into action by the noble motive of doing good.—*Farmer & Gardner.*

Chemistry applied to Agriculture.—It is stated the celebrated chemist Savoisier cultivated 240 acres of land in La Vendee on chemical principles, in order to set a good example to the farmers. His mode of culture was attended with so much success that his crops amounted to a third more than those which were produced by the usual method; and in nine years his annual produce was doubled. Yet the generality of our yeomanry would as soon think of studying Hebrew, as the elementary principles of Chemistry.

Gibbon's Advocate of Science.

HOE OUT YOUR ROW.

THE FARMER'S SONG.

You've a hard row to hoe, noble knight of the sod,
But to toil in the earth is the mandate of GOD;
And if by the sweat of your brow you must win
Your bread, it is time, it is time, to begin;
Then go to, go,
If your bread by the sweat of your brow you must win,
Hoe out your row.

In the rough row before you though rugged the soil,
'Twill repay in due season the culturer's toil;
Though wild grass and weeds so profusely abound.
Perseverance and patience will mellow the ground;
Apply the hoe,
Perseverance and patience will mellow the ground;
Hoe out your row:

Though the young tender plant is now feeble and pale
Let not faith in the promise of harvest time fail;
Nor deem you are tired as a motive to stop,
If you would be sure of a plentiful crop;
Your progress though slow,
If you would be sure of a plentiful crop,
Hoe out your row.

Let it never be said that you flagged on the way,
Or that idly you turned from your labor to play—
Nor heed wind nor weather, nor yet burning sun,
But go ahead manfully till you have done—
Quick wield the hoe
And go ahead manfully till you have done—
Hoe out your row.

Soon shall the tender plant broadly expand,
And loftily rise 'neath a cherishing hand—
Already, methinks, greener, far it looks—
Then carefully nurse its young delicate shoots,
And bid it grow,
Then carefully nurse its young delicate shoots—
Hoe out your row.

I admit that your row is peculiarly hard,
But bountiful Heaven insures your reward—
I own it is long—but believe me, my friend,
If you hold on your way you will come to the end—
With certainty known,
If you hold on your way you will come to the end,
Hoe out your row.

When done, you may rest—with pride and joy,
You behold the result of your useful employ,
And reflect that ov'n toil hath a blessing and charm—
It nerves the free spirit, adds strength to the arm—
Then speed the hoe,—
With invincible spirit and vigorous arms,
Hoe out your row.

VIRTUE.

I hope it will be written on the tablets of your heart, in characters not to be effaced by ambition, avarice or pleasure, that the only sure and certain happiness to be found on this side of the grave, is a consciousness of your own rectitude. All peace and home-felt joy are the reward of virtue. And there is no applause in this world worth having, unless it is crowned with our own.

Sir J. E. Wilmot to his Son.

Editorial Notice.

We have of late received many letters, urging on us the importance of having active agents, who would make a business of obtaining subscribers to the Farmer. We have long and anxiously been endeavoring to procure the services of a travelling agent of competent qualifications, who would visit the different counties in the State, procure subscribers, and engage local agents.—We have hitherto been unsuccessful in our efforts. We would esteem it a great favor, if any of our friends would engage such a man, to write to, or to visit us, and make known on what terms he would undertake that business. In the mean time, we will feel ourselves under great obligations, to any of our agents or friends to the paper, who will engage men of integrity and capacity for the business, to act as local agents in obtaining subscribers to the Farmer—to such, we will allow 12 1-2 per cent. on all monies remitted, to be retained by them, and will moreover furnish them with a copy of the Farmer free of charge. Any person who will forward us the names of eight solvent subscribers, shall also receive a copy of the Farmer for one year without charge. We solicit the aid of our friends, and of the friends to the Farmer, in relation to the subjects of this notice. About 300 copies of the first twelve numbers are yet on hand, and can be furnished to new subscribers; and we are now publishing a large impression of the succeeding Numbers, with an intention, if the demand shall justify it, of reprinting the first twelve, and furnishing a complete copy of the first Volume to all who may wish it. A title page and index will be furnished with the 24th No, which will conclude the first Volume.

To enable us to avoid errors in the transmission of the paper, it is very desirable, that the names of subscribers, and of the Post Office to which the paper is to be directed, as well as the date when the subscription is to commence, should be written in a plain and legible hand-writing—for want of this several errors have already occurred. It is presumed that the work is now sufficiently known to supercede the necessity of incurring the expense of forwarding by mail copies of the prospectus—a simple direction to this effect: "The Editor of the Tennessee Farmer will forward that paper to the subscribers as directed below"—

Names of Subscribers.	Post Office.	County.	Number at which commenced.
A. B.	C.	D.	No. 1.

will be sufficient, and can be written with little trouble.

Where subscribers shall have died or removed Postmasters will please return the papers forwarded to them, with notice of the fact. All Post Masters are authorized and requested to act as agents for the Farmer.

ADDITIONAL LIST OF AGENTS.

John C. Brook, Bellmont, Fayette county, W. Tenn.
Edward N. Cullom, Monroe, Overton c'ty, W. Tenn.
John P. Hickman, Esq., Davidson county, W. Tenn.

A PRACTICAL TREATISE ON THE CULTURE OF SILK, adapted to the Climate and Soil of the United States, By F. G. Comstock, Secretary of the Hartford County Silk Society, and Editor of the Silk Culturist. Illustrated by Engravings.

The interest in all parts of the United States in the Culture and Manufacture of Silk, manifested by the constant calls for information on the subject, has induced the publisher to have prepared a plain Practical Treatise on the Culture of the Mulberry and Rearing Silk Worms, adapted to the Soil and Climate of this country and to the wants of plain practical men.

The Practical Culturist in this country needs a directory adapted to the Soil on which he plants his trees, and the Climate in which he rears his worms, without reference to Soils and Climates less congenial to their growth. It has been therefore the object of the author to make a treatise stricly practical, omitting nothing of importance and adding nothing of a useless or extraneous character.

As making the raw material into Sewing Silk and Twist is very profitable to the Silk-grower, all necessary information for that purpose will be given.

This Work is in Press and will soon be published in a duodecimo of about 100 pages, in handsome binding—price 50 cents. A part of the edition will be put up in elastic covers to be forwarded by mail.

Editors of Newspapers who will give the above three insertions, with this notice, and forward their paper with the advertisement marked, shall be entitled to a copy of the work, to be forwarded to their order.

WM. G. COMSTOCK.

Hartford, Dec. 1835

APPRENTICES WANTED.

WANTED, one or two smart, active boys between the ages of 12 and 15, who can read and write, as Apprentices to the Printing Business. Apply at this Office.

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